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ABSTRACT

Twelve studies relating writing apprehension to a variety of measures of self-esteem and personality are summarized in this paper. The findings reported indicate that apprehension is inversely related to self-esteem, marginally related to some personality measures (alienation, tolerance for ambiguity), inversely associated with mathematics anxiety, and positively correlated with attitudes toward oral communication and reading. (FL)

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Writing Apprehension, Self-Esteem, and Personality

by

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Writing Apprehension, Self-Esteem,
and Personality

The idea that people vary in how they feel about writing is not new. For centuries teachers and authors have alluded to the fact that some people like writing more than others. Yet only recently have systematic investigations probed the nature, correlates, and consequences of this tendency called writing apprehension or writing anxiety. The present article briefly reviews previous research on the construct and then summarizes a series of studies relating the apprehension to self-esteem and some general personality variables.

The term writing apprehension was coined by Daly and Miller (1975a). It refers to a situation and subject specific individual difference associated with a person's tendencies to approach or avoid situations perceived to potentially require writing accompanied by some amount of perceived evaluation. While conceptually treated as a continuous person dimension, it is useful, for descriptive purposes, to describe prototypical high and low apprehensive people. High apprehensive individuals find writing unrewarding, indeed punishing. Consequently they avoid, if possible, situations where writing is required. When placed in such situations they experience more than normal amounts of anxiety. This anxiety is often reflected in their written products and in their behaviors in, and attitudes about, writing situations. Low apprehensives represent the other end of the continuum. They don't mind writing, are confident in their abilities to do so, and often enjoy it. Research has associated the apprehension with choices people make, attitudes they hold, and differences in their writing skills and performance.

Writing apprehension has been linked to both academic and occupational

decisions (Daly & Shamo, 1976, 1977; Miller & Daly, note 1). Highly apprehensive individuals prefer and choose occupations and majors they perceive to not require much writing. In contrast, low anxious people like and select jobs and academic concentrations they judge to demand comparatively more writing. Within classrooms, apprehension affects satisfaction in coursework requiring writing, expectations of success in future writing courses, enrollment in advanced composition classes, and enjoyment of out-of-class projects which ostensible demand some writing (Daly & Miller, 1975b; Scott & Wheelless, note 2). Classroom teachers evaluate highly apprehensive writers as significantly less likely to succeed in a variety of academic subjects than their low anxious counterparts (Daly, 1979). Sex differences also exist (Daly & Miller, 1975b; Dickson, 1978). Men are typically found to be slightly more apprehensive than females. Developmentally, a deficit in skills training and poor or negative teacher responses to early writing attempts are apparently related to the apprehension (Daly, note 3; Harvley-Felder, 1978).

In terms of writing and writing related skills, research consistently reveals differences between high and low apprehensives. The apprehension is associated with lower scores on standardized tests of writing aptitude and ability (Daly, 1978; Daly & Miller, 1975b; Faigley, Daly & Witte, note 4; Richmond & Dickson, note 5). When actual writing is examined analyses suggest that highly apprehensive individuals, when compared with low anxious people, write less, use fewer qualifications, and opt for lower levels of language intensity (Book, note 6; Daly, 1977; Faigley, Daly & Witte, note 4; Garcia, 1977; Daly & Miller, 1975c). Qualitatively, messages encoded by high apprehensives are evaluated as lower in overall quality than those written by low apprehensives (Daly, 1977; Faigley, Daly & Witte,

note 4, Garcia, 1977; Richmond & Dickson, note 5). Finally, messages written by low apprehensives are more effective in counterattitudinal advocacy attempts than those encoded by high apprehensives (Toth, 1975).

This report describes a series of studies relating writing apprehension to a variety of other person related constructs. For organizational purposes the studies are summarized within the framework of five broad research issues. Each issue addresses a different, but related, question. The first three concern the relationship between apprehension and self-esteem across varying groups of people and measures. The fourth deals with the relationship between apprehension and a number of more general personality variables. The final research issue examines the association between writing apprehension and other subject specific attitudes and anxieties.

The first three research issues concern the relationship between writing apprehension and self-esteem. While empirical research on the association between self-esteem and writing oriented variables is quite limited, anecdotal evidence, as well as social theories of self-esteem suggest an inverse relationship between apprehension and self-esteem. Comments from teachers of writing often include the suggestion that the way a student feels about him or herself affects, and is affected by, how he or she writes. Teachers indicate, for instance, that students who are apprehensive about writing (e.g., don't like writing, are uncomfortable when writing) also tend to feel less than positive about themselves. Reflecting these observations are studies probing the effects of various writing programs on the modification of self-esteem (Fritts, 1977; Torian, 1977).

Theoretically, self-esteem may be conceived to be a function of the social responses of others to the individual's presentation of self. The

act of writing with its highly intentional nature and required effort, is sometimes directly, and almost always indirectly, an exposure of self to others. In most cases, writing is accompanied by either actual or implied evaluations from others. This exposure and evaluation may be reflected, over time, in inferences by the writer of self-worth. A history of positive evaluations of one's writing should lead to higher self-esteem on the part of the writer then would a series of negative reactions. Heightened self-esteem should be associated with lower writing apprehension. A person's apprehension about writing develops, and is maintained, at least in part, from others evaluations of his or her writing. People receiving positive responses from others for their writing are less likely to be apprehensive about the act than their counterparts who receive negative reactions. These notions were tested in a series of investigations described under the first three research issues.

The Relationship Between Writing Apprehension and Self-Esteem

One hundred and seventy-two undergraduate students enrolled in basic composition courses at a large Midwestern University participated. All completed the twenty-six item version of the writing apprehension instrument (Daly & Miller, 1975a) and two measures of general self-esteem: one devised by Rosenberg (1965) and the other created by Pervin and Lilly (1967). All instruments had, in previous research, been found reliable and valid as assessments of the constructs they purport to measure. In the current study all were sufficiently reliable for purposes of analysis. The writing apprehension measure had an alpha coefficient of .92, the Rosenberg questionnaire had an alpha of .82, and the Pervin and Lilly instrument had an alpha of .83.¹

The Pearson product moment correlation between the two general self-esteem measures was .53 ($p < .0001$) which, while statistically meaningful, was not large enough to justify collapsing the two into a single measure of analysis. Thus, separate correlations between each and writing apprehension were computed. The correlation between the writing apprehension measure and Rosenberg's instrument was $-.31$ ($p < .0001$) while the correlation between the writing apprehension measure and Lilly and Pervin's questionnaire was $-.23$ ($p < .001$).

A second sample of 292 undergraduate students at a large Southern university completed the writing apprehension measure and the Rosenberg (1965) questionnaire. The correlation between the two was $-.11$ ($p < .03$) replicating the effect described above.

The results suggest that writing apprehension and general self-esteem are inversely related to one another. While the magnitude of relationship is small, the consistency across two separate measures of self-esteem is impressive along with the replication with the Rosenberg measure. However, questions of generality still remain since the samples were composed entirely of college students. The next group of studies sought to address the question of how general these findings are.

The Generality of the Relationship Between Writing Apprehension and Self-Esteem

This research issue was studied in three separate, but quite similar, investigations. Each study used an adult sample. Two of the samples were composed of elementary and high school teachers enrolled in in-service courses in communication ($n=202$ and $n=384$). They participated as part of a classroom activity. The third sample ($n=211$) consisted of employees of a large Federal government agency. They participated as part of a larger survey of

organizational satisfaction. Every respondents completed a multiple dimension measure of self-esteem assessing self-perceived competence, sociability, composure, extroversion, and trustworthiness (McCroskey & Richmond, note 7). In addition, the second sample (one of the groups of teachers) completed the Berger (1952) self-acceptance scale, a measure of general self-esteem. All participants also completed the writing apprehension measure. Median reliabilities for the scales across samples were: competence, .84; sociability, .86; composure, .86; extroversion, .89; trustworthiness, .79; writing apprehension, .95; and self-acceptance, .91.

The results of analyses were consistent with the previously reported research. For all three samples the multiple correlations between writing apprehension and the five factor self-esteem measure were statistically significant ($p < .001$) and, as expected, inversely related (r 's = -.27, -.31, -.40). Specifically, there were significant ($p < .05$) inverse relationships between apprehension and self-perceived competence for each sample (r 's = -.24, -.27, -.36). In addition, writing apprehension was significantly and negatively related to composure ($r = -.14$, $p < .05$) and extroversion dimension ($r = -.36$, $p < .05$) in the third sample. The Berger self-acceptance measure was also significantly and inversely related to the apprehension ($r = -.14$, $p < .05$).

The relationship between writing apprehension and general self-esteem seems well established. While its magnitude is small, it is consistent across samples and measures.

All of the self-esteem measures so far used were quite general. They reference an individual's overall evaluation of self. But a person also has evaluative feelings about self in relation to specific activities. For example, a person may have specific feelings about self as a writer. These

feelings, drawn from direct experience with writing, should be closely related to apprehension given the entering rationale for these studies. And the magnitude of the relationships between apprehension and them should be larger given their more specific focus than those obtained when using general measures of esteem. The next investigation tested these predictions.

Writing Apprehension and Writing Specific Self-Esteem

Three hundred and eighty-eight undergraduate students enrolled in a basic communication course at a large Eastern university participated in this study as a part of a classroom exercise. All completed the twenty-six item writing apprehension measure. In addition, each completed a recently developed measure that can tap self-perceptions of writing (Daly, note 2). The new measure, originally designed to assess "naive" readers reactions to writing, was slightly modified for this study. Respondents were asked to focus on their own writing rather than on some particular piece of literature and to complete a number of semantic differential scales in relation to their writing. Their responses were clustered into fourteen dimensions. Each dimension assessed a different component of writing. Table 1 provides a summary of the dimensions and typical items composing each. All of the dimensions, as well as the writing apprehension measure, were reliable.

The multiple correlation between the fourteen dimensions of writing self-esteem and writing apprehension was $-.73$ ($p < .0001$) which was substantially larger than the correlations obtained in previous studies. The individual correlations between apprehension and each of the fourteen dimensions were all negative and statistically significant. Table 1 summarizes the specific correlations.

The results are consistent with previous research and with the framework initially presented. There is a statistically meaningful and inverse relationship between writing apprehension and the way people feel about themselves. This relationship is substantially larger when the self-esteem measure is writing specific. In addition, an examination of Table 1 provides some indication of the nature of the writing apprehension construct. Dimensions likely related to apprehension (e.g., evaluation, interest, tempo, forcefulness, organization) are strongly related while dimensions that should be relatively unrelated, are found to be so (e.g., accuracy, honesty, readability).

Table 1 about here

All of the studies described to this point focus on the relationship between writing apprehension and one personality variable--self-esteem. Small to moderate, and statistically significant, associations with apprehension were observed across measures and levels of self-esteem. Those relationships are interpretable from theory and research on both the apprehension and self-esteem. The next research issue expands the range of personality correlates to a broader and more general selection.

Writing Apprehension and Other Personality Variables

A critical part of delineating the writing apprehension construct consists of identifying relationships between it and other individual differences. Such assessments help us understand what writing apprehension is. They also permit us to examine the relative independence of the construct from other dimensions of personality--a critical concern for any research on individual differences. To the extent that a significant over-

lap exists between apprehension and other personality measures its usefulness, at least in terms of parsimony, would be questionable.

Five separate investigations correlated writing apprehension with other personality variables. The first examined the relationship between apprehension and trait anxiety as measured by the Spielberger, Gorsuch and Lushene (1970) instrument. One hundred and forty-one undergraduates enrolled in educational psychology, communication, and composition courses at a large Eastern University participated. The second study correlated writing apprehension with measures of oral communication anxiety (McCroskey, 1978) and receiver apprehension (Wheless, 1974). Three hundred and forty-nine adults enrolled, or related to someone enrolled, in graduate extension programs at a large Eastern University participated. The third investigation related apprehension with five general social personality variables: tolerance for ambiguity (Rydell & Rosen, 1966), internal-external locus of control (Rotter, 1966), dogmatism (Trodahl & Powell, 1965), machiavellianism (Christie & Geis, 1970), and achievement need (Costello, 1967). Respondents for this study were one hundred and eight-nine elementary and secondary school teachers enrolled in a graduate extension course in communication being held in a large Eastern state. The fourth study related apprehension to social approval seeking as measured by the Crowne and Marlowe (1964) instrument. One hundred and sixteen undergraduate students enrolled in communication courses at a large Southern University participated.

The final investigation correlated the writing apprehension measure with instruments assessing anomie (Srole, 1956) and alienation (Dean, 1961). The second measure was composed of three subscales assessing powerlessness, normlessness, and feelings of isolation. The measures were completed by

undergraduates at a large Southern University. For studies where non-college populations were sampled the writing apprehension measure was the twenty item version. For college groups it was the twenty-six item one.

Across all measures of personality the correlations between each and apprehension was small. The correlations with trait anxiety ($r=.14$), locus of control ($r=.03$), dogmatism ($r=.12$), machiavellianism ($r=.05$), achievement need ($r=.08$) and social approval seeking ($r=-.04$) were statistically non-significant. The correlations between apprehension and oral communication apprehension ($r=.28$), receiver anxiety ($r=.19$), and tolerance for ambiguity ($r=-.21$) were statistically significant ($p<.05$) but not large. Finally, the correlations between apprehension and powerlessness ($r=-.10$), normlessness ($r=-.10$), isolation ($r=-.11$), and the overall measure of alienation ($r=-.12$) were again significant but not large while the correlation with anomie ($r=-.04$) was not significant.

This pattern of results suggest the relative independence of the writing apprehension construct. It isn't correlated, in any meaningful way, with a number of personality measures commonly found in psychological and educational research. All of the personality constructs used in the four studies just described were general. They play a consistent and important role in a wide variety of situations. But writing apprehension represents a subject-specific disposition. How does it relate to other subject-specific anxieties and attitudes? The final investigation probes this question.

Writing Apprehension and Other Subject-Specific Attitudes

Writing apprehension is defined, in part, by its restricted nature: it deals only with the act of writing. As such it is a subject-specific

apprehension. Researchers in a number of academic disciplines have identified and devised measures of similar constructs specific to their own fields. Thus, there is math anxiety, reading attitudes, speech and communication apprehension, science attitudes, and other measures of writing apprehension. In the investigation summarized here the Daly and Miller writing apprehension measure was correlated with instruments assessing reading, speech, math, and science attitudes. In addition, two other measures of writing attitudes were related to the apprehension.

One hundred and sixteen undergraduates at a large Southern University completed two measures of reading attitudes (Kennedy & Halinski, 1975; Estes, 1971), three assessments of math anxiety (Fennema & Sherman, 1976; Aiken, 1974; Callahan, 1971), three measures of oral communication apprehension (Burgoon, 1976; Gilkinson, 1974; McCroskey, 1978), three instruments assessing attitudes towards science (Moore & Sutman, 1970; Shrigley, 1974; Dutton & Stephens, 1963), and two questionnaires that purport to assess attitudes about writing (Blake, 1976; Thompson, 1978). In many cases the scales were slightly modified to fit a college sample and to directly assess attitudes, anxieties, and apprehension (Daly & Korinek, note 9). The correlations between each of these instruments and the writing apprehension measure are reported in Table 2.

Table 2 about here

The mean correlation between apprehension and math attitudes was $-.33$ ($p < .001$) with science attitudes a nonsignificant $.02$, with oral communication anxiety it was $.45$ ($p < .001$), with reading attitudes it was $.38$ ($p < .001$) and with other measures of writing anxiety it was $.83$ ($p < .001$).

Writing apprehension again appears relatively independent of other

personality constructs. The correlations between it and other subject-specific anxieties, while mostly significant, are only of low to moderate magnitude. The only exception is the relationship between the Daly and Miller writing apprehension measure and two other instruments, devised later than the Daly and Miller one, that assess similar dispositions towards the act of writing. Interestingly, the significant correlation between writing apprehension and math anxiety appears inverse while the significant correlations between apprehension and both reading and oral communication attitudes are positive. People who enjoy writing may, in some instances, find math uninviting and reading and speech attractive. This pattern fits the often drawn, but perhaps less theoretically clear, dichotomy between verbal and math aptitudes. In addition, the mean correlation between apprehension and oral communication anxiety was higher than the average correlations with reading. Apparently sending messages, whether by writing or speech, is more closely tied than sending written messages and receiving written ones

Discussion

This report summarizes twelve separate investigations of writing apprehension. Consistent across studies is an interest in the relationship between apprehension and personality----whether construed as self-esteem, general personality, or subject-specific anxieties and attitudes. The studies form part of an emerging body of research suggesting the importance, and relative independence, of the apprehension construct.

The first three research questions examined the relationship between writing apprehension and self-esteem. Findings suggest an inverse relationship between the two. Also, a stronger association of apprehension with writing

specific esteem than with more general self-esteem. The findings fit with the theoretic structure proposed in the introduction to this article. Since both esteem and apprehension are, to some extent, a function of the evaluative reactions of others, a correlation between the two would be expected. It was observed. Individuals with high apprehension about writing may, to some degree, also suffer from lower self-esteem than their counterparts with low apprehension. Two cautions need to be enunciated. First, the correlations are not large enough to suggest any one-to-one congruence. In fact, the magnitude of the relationships offer the possibility of treating the two constructs as independent and examining their separate and joint effects on writing. Second, it is critical to note that the pattern of findings fail to suggest any causal pattern. We do not argue either that apprehension causes lower self-esteem or that self-esteem causally affects apprehension. Rather, we posit a shared mechanism of evaluation. While both esteem and apprehension share that component neither is, per se, evaluation anxiety.

The remaining two research questions dealt with the relationship between writing apprehension and other personality variables. Findings suggest that apprehension is, to a limited degree, positively related to oral communication apprehension, reading attitudes, and receiver anxiety; inversely related to tolerance for ambiguity, math anxiety, and alienation; and unrelated to trait anxiety, locus of control, dogmatism, machiavellianism, science attitudes, anomie, and social approval seeking. In addition, the Daly and Miller measure strongly correlates with other, more recent and less validated, instruments purporting to assess constructs similar to writing apprehension. These latter investigations provided an important opportunity to examine the convergent and discriminant validities of the apprehension construct. In

a convergent sense, the only correlations of large magnitude were those of apprehension with other measures of writing attitudes. Moderate correlations were with other "sending" and "word" oriented constructs such as reading and speech attitudes. Low or nonsignificant relationships were observed between apprehension and most other variables suggesting the relative independence or discriminant validity of the construct. In short, strong and meaningful relationships were found where they should have been found; small and nonsignificant ones were observed where they should be. These studies, along with others indicating the validity of the writing apprehension construct, provide sound evidence of the importance of the construct.

Other correlational work clearly needs to be completed. To date research has primarily focused on the effects of the apprehension. While some study is now being given to the treatment and reduction of the apprehension (Fox, 1980; Powers, Cook & Meyer, 1979) more needs to be done and significant issues revolving around the justification for such efforts need careful consideration (Daly & Faigley, note 10). Further, the construct needs broadening. We are currently developing a more expansive measure of the apprehension that will allow us to tap the more multidimensional nature of the construct. Also, we are in the process of devising a measure of situational anxiety that will allow us to focus on more than the simple, dispositional construct we have worked with so far. Finally, we are carefully examining the relationship between self-esteem and actual writing behaviors (Daly, Witte & Faigley, note 11) trying to find support for the presumed, but never validated assumption, of a relationship between the two.

Reference Notes

1. Miller, M.D. & Daly, J.A. The development of a measure of writing apprehension. Paper presented at the Annual Conference of the International Communication Association, Chicago, April, 1975 (available from Daly).
2. Scott, M.D. & Wheelless, L.R. An exploratory study of the relationship of three types of communication apprehension to student attitudes, levels of satisfaction and achievement. Paper presented at the Annual Conference of the Speech Communication Association, Houston, 1975 (available from M.D. Scott, Department of Speech Communication, West Virginia University, Morgantown, WV).
3. Daly, J.A. Writing apprehension in the classroom. Paper presented at the Annual Conference of the International Communication Association, Berlin, W. Germany, May, 1977 (available from Daly).
4. Faigley, L., Daly, J.A. & Witte, S.P. The effects of writing apprehension on writing performance and competence. Unpublished report, 1980 (available from Daly).
5. Richmond, V.P. & Dickson, F. Two studies of the validity of the writing apprehension test. Paper presented at the Annual Conference of the Eastern Communication Association, Ocean City, MD, April, 1980 (available from V.P. Richmond, Department of Speech Communication, West Virginia University, Morgantown, WV).
6. Book, V. Some effects of apprehension on writing performance. Paper presented at the Annual Conference of the Western Speech Communication Association, San Francisco, 1976 (available from Daly).

7. McCroskey, J.C. & Richmond, V.P. Self credibility as an index of self-esteem. Paper presented at the Annual Convention of the Speech Communication Association, Houston, 1975 (available from J.C. McCroskey, Department of Speech Communication, West Virginia University, Morgantown, WV).
8. Daly, J.A. Measuring naive readers' reactions to writing. Unpublished report, 1980 (available from Daly).
9. Daly, J.A. & Korinek, J. Interrelationship of subject-specific attitude measures. Unpublished report, 1980 (available from Daly).
10. Daly, J.A. & Faigley, L. Sense and nonsense in anxiety research. Paper presented at the Annual Conference of the National Council of Teachers of English, Cincinnati, November, 1980 (available from Daly).
11. Daly, J.A., Witte, S.P. & Faigley, L. Writing and self-esteem. Unpublished report, 1980 (available from Daly).

References

- Aiken, L.R. Two scales of attitude toward mathematics. Journal for Research in Mathematics Education, 1974, 5, 67-71.
- Blake, R.W. Assessing English and Language Arts teachers' attitudes towards writers and writing. The English Record, 1976, 27, 87-97.
- Berger, E.M. The relation between expressed acceptance of self and expressed acceptance of others. Journal of Abnormal and Social Psychology, 1952, 47, 778-782.
- Burgoon, J.K. The unwillingness-to-communicate scale: Development and validation. Communication Monographs, 1976, 43, 60-69.
- Callahan, W.J. Adolescent attitudes towards mathematics. Mathematics Teacher, 1971, 64, 751-755.
- Christie, R. & Geis, F. Studies in machiavellianism, New York: Academic Press, 1970.
- Costello, C.G. Two scales to measure achievement motivation. Journal of Psychology, 1967, 66, 231-235.
- Crowne, D.P. & Marlowe, D. The approval motive: Studies in evaluation dependence. New York: John Wiley, 1964.
- Daly, J.A. The effects of writing apprehension on message encoding. Journalism Quarterly, 1977, 54, 566-572.
- Daly, J.A. Writing apprehension and writing competency. Journal of Educational Research, 1978, 72, 10-14.
- Daly, J.A. Writing apprehension in the classroom: Teacher role expectancies of the apprehensive writer. Research in the Teaching of English, 1979, 13, 37-44.

- Daly, J.A. & Miller, M.D. The empirical development of an instrument to measure writing apprehension. Research in the Teaching of English, 1975, 9, 272-249 (a).
- Daly, J.A. & Miller, M.D. Further studies in writing ap prehension: SAT scores, success expectations, willingness to take advanced courses, and sex differences. Research in the Teaching of English, 1975, 9, 250-256 (b).
- Daly, J.A. & Miller, M.D. Apprehension of writing as a predictor of message intensity. Journal of Psychology, 1975, 89, 175-177.
- Daly, J.A. & Shamo, W. Writing apprehension and occupational choice. Journal of Occupational Psychology, 1976, 49, 55-56.
- Daly, J.A. & Shamo, W. Academic decisions as a function of writing apprehension. Research in the Teaching of English, 1978, 12, 119-126.
- Dean, D. Alienation: Its meaning and measurement. American Sociological Review, 1961, 26, 753-758.
- Dickson, F.C. Writing apprehension and test anxiety as predictors of ACT scores. Unpublished MA thesis, West Virginia University, 1978.
- Dutton, W.H. & Stephens, L. Measuring attitudes toward science. School Science and Mathematics, 1963, 63, 43-49.
- Estes, T.H. A scale to measure attitudes toward reading. Journal of Reading, 1971, 15, 135-138.
- Fennema, E. & Sherman, J.A. Fennema-Sherman mathematics anxiety scales. Journal Supplement Abstract Service, 1976, 6, 1225.
- Fox, R. Treatment of writing apprehension and its effects on composition. Research in the Teaching of English, 1980, 14, 39-49.
- Fritts, M.F.H. The effects of individual teacher conferences on the writing achievement and self-concept of developmental Junior College students. Dissertation Abstracts International, 1977, 37, 4185A.

- Garcia, R.J. An investigation of relationships: Writing apprehension, syntactic performance, and writing quality. Doctoral dissertation, Arizona State University, 1977.
- Gilkinson, H. A questionnaire study of social fears among college speech students. Speech Monographs, 1943, 10, 74-83.
- Harvley-Felder, Z.C. Some factors relating to writing apprehension: An exploratory study. Doctoral dissertation, University of North Carolina, 1978.
- Kennedy, L. & Halinsky, R. Measuring attitudes: An extra dimension. Journal of Reading, 1975, 18, 518-522.
- McCroskey, J.C. Validity of the PRCA as an index of oral communication apprehension. Communication Monographs, 1978, 45, 192-203.
- Moore, R.W. & Sutman, F.X. The development, field test, and validation of an inventory of scientific attitudes. Journal of Research in Science Teaching, 1970, 7, 85-94.
- Pervin, L. & Lilly, R. Social desirability and self-ideal self ratings on the semantic differential. Educational and Psychological Measurement, 1967, 27, 845.
- Powers, W., Cook, J.A. & Meyer, R. The effect of compulsory writing on writing apprehension. Research in the Teaching of English, 1979, 13, 225-230.
- Rosenberg, M. Society and the adolescent self-image. Princeton; Princeton University, 1965.
- Rotter J.B. Generalized expectancies for internal versus external control of reinforcements. Psychological Monographs, 1966, 80 (whole number 609).
- Rydell, S.T. & Rosen, E. Measurement and some correlates of need cognition. Psychological Reports, 1966, 19, 139-165.
- Shrigley, R.L. The attitude of pre-service elementary teachers toward science. School Science and Mathematics, 1974, 74, 243-250.

- Spielberger, C.D., Gorsuch, R.R. & Lushene, R.E. State-trait anxiety inventory test manual for Form X. Palo Alto: Consulting Psychologists Press, 1970.
- Srole, L. Social integration and certain corollaries. American Sociological Review, 1956, 21, 709-716.
- Thompson, M. The development and evaluation of a language study approach to a college course in Freshman composition. Doctoral dissertation, The American University, 1978.
- Torian, C.L. An evaluation of the development of a more positive self-image in middle school aged school aged children through a particular creative writing program. Dissertation Abstracts International, 1977, 37, 7593A
- Toth, D. The effects of writing apprehension on attitude change in the counterattitudinal paradigm. Master's thesis, West Virginia University, 1975.
- Trodahl, V. & Powell, F. Short dogmatism scale. Social Forces, 1965, 44, 211-214.
- Wheless, L.R. An investigation of receiver apprehension and social context dimensions of communication apprehension. The Speech Teacher, 1975, 24, 261-268.

Footnotes

1. The reliabilities for the measures described in the text were always quite high and sufficient for analysis. For space reasons they will not be consistently reported. In addition, the statistical power for tests made was always high, for large or medium effects.

Table 1
Apprehension and Writing-Specific Self-Esteem

Dimension and Examples ^a	r with Apprehension
Evaluation (good-bad; effective-ineffective; worthwhile-worthless)	-.64
Organization (organized-disorganized; orderly- disorderly; structured-unstructured)	-.55
Tempo (reads well-reads poorly; free flowing- choppy; graceful-clumsy)	-.62
Accuracy (factual-opinionated; accurate- inaccurate; true-false)	-.16
Competence (knowledgeable-not knowledgeable; intelligent-unintelligent; expert-inexpert)	-.49
Meaningfulness (meaningful-meaningless; pur- poseful-pointless; important-unimportant)	-.52
Timeliness (timely-obsolete; relevant- irrelevant)	-.37
Interest (varied-monotonous; interesting- boring; engaging-dull)	-.57
Readability (readable-unreadable; neat-sloppy; legible-illegible)	-.28
Clarity (cluttered-uncluttered; concise- wordy; repititious-not repititious)	-.43
Mechanics (good spelling-bad spelling; gramma- tical-ungrammatical; good word choice- bad word choice)	-.44

Support (evidenced-unevidenced; supported- unsupported; logical-illogical)	-.40
Honesty (honest-dishonest; trustworthy- untrustworthy)	-.16
Forcefulness (forceful-not forceful; bold- timid; strong-weak)	-.55

a. items were randomly presented and the direction of each item was also random. For clarity, all items are in one direction in this table.

Table 2
Writing Apprehension and Other Subject Attitudes

Measure	r	Measure	r
Mathematics		Oral Communication	
Fennema & Sherman (1976)	-.29	McCroskey (1977)	.43
Aiken (1974)	-.30	Gilkinson (1943)	.44
Callahan (1971)	-.30	Burgoon (1976)	.32
Science		Writing	
Moore & Sutman (1970)	-.01	Thompson (1978)	.92
Shrigley, (1974)	.11	Blake (1976)	.80
Sutton & Stephens (1963)	.00		
Reading			
Kennedy & Halinski (1975)	.29		
Estes (1971)	.35		